

### **Abstract**

A system and method are provided for tracking memory requests within a data processing system. The system includes a request tracking circuit that is coupled to receive requests for data from multiple processors. Multiple pending requests to the same memory address are tracked using a linked list. Only the oldest pending one of these multiple requests is issued to the memory. When data is returned from the memory, the requests are processed in an order determined by the linked list. That is, the data is provided to a processor associated with the oldest request. Thereafter, the data is retrieved and provided to the processor associated with the next request, and so on. A request issued by the memory soliciting the return of the data to the memory may also be added to the linked list to be processed in the foregoing manner.

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